

in seven different individuals affected with phthisis in different stages of advancement:—

		Red corpuscles.	Fibrin.
First stage, before the use	{ Female	129.26	4.52
of cod-liver oil ...	{ Male	116.53	13.57
First stage, after the use	{ Female	136.47	5.00
of cod-liver oil ...	{ Male	141.53	4.70
Third stage, after the use	{ Male	138.74	2.23
of cod-liver oil ...	{ Male	139.95	2.31
Third stage, after the use	{ Male	144.94	4.61
of cocoa-nut oil ...			

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## MATERIA MEDICA AND PHARMACY.

7. *Experiments on the Preparations of Squill.*—Dr. CHATEAU has instituted a series of experiments, with the view of replying to a question proposed by the Faculty of Medicine of Paris: “*Determine by clinical observations what are the effects of the preparations of squill.*” In a *résumé* of the memoir presented to the Academy, M. Chateau states the powder, wine, vinegar, and oxymel of squills were employed; but the powder, most frequently, on account of its action not being interfered with by any other constituent of the medicine.

His first experiments were made upon seven dogs, to whom he administered quantities of the squill varying from 40 grammes of the powder to 1 gramme, or their equivalent, of the wine of squill. In one of these experiments, 1 gramme of soft extract of squill was injected into the subcutaneous cellular tissue; in all the other experiments, the drug was introduced into the stomach. The effects produced were the following: The animals became dull, and this was followed by increase of the buccal secretions, nausea, efforts at vomiting, and by semi-liquid stools passed in small quantities; when the dose was sufficiently large, tremblings supervened, and paralysis of the posterior limbs, which soon extended to the anterior. After this, the animals appeared to regain their equilibrium, and then suddenly a convulsive attack occurred; they fell upon their side; there were some movements of deglutition, a little orthotonos, and death in from thirty-five minutes to one hour and fifty-five minutes after administration of the drug. When the dose was small, the same series of phenomena was exhibited, but more tardily; and death was delayed for twelve or fifteen hours. In all the experiments there was a remarkable diminution of the temperature of the body, as taken in the rectum, believed to be due to the hyposthenic action of the squill upon the nervous system. On examination of the bodies after death, the viscera were found congested, the blood black and thick, the bladder empty, or containing but little urine, the ganglia of the great sympathetic reddened, the cerebrum little altered, but the cerebellum and spinal cord softened sometimes even to diffuence.

M. Chateau next relates the results of his observations on the human subject in disease, which had reference principally to the diuretic and laxative operation of the drug. He administered it in 4 cases of pulmonary emphysema, in 3 cases of albuminuria, 3 cases of abdominal dropsy, 1 of which was ovarian, 2 cases of pleurisy, 2 cases of pneumonia, 2 cases of phthisis, and several cases of rheumatism, only 1 of which is related in the original memoir. In these 17 cases, the operation of the squill was as follows: in 7, it proved *diuretic and purgative*; in 2, simply *diuretic*; in 2, simply *purgative*; in 4, *expectorant*; in 1, *diuretic and expectorant*; and in 1 no effect was observed.

He noticed that when either the purgative or diuretic operation became excessive, the other immediately ceased.

The number of cases of each disease in which the squill was administered was too small to warrant the general therapeutical conclusions drawn by Dr. Chateau; we shall therefore content ourselves with noticing two points of in-

terest connected with the operation in the cases described. Of the cases of *albuminuria*, 2 were purged by the powdered squill without any increase in the secretion of urine; in the third case, where the wine of squill was employed, a diuretic effect followed; but in all three cases, the albumen in the urine was unaffected. In one of the cases of *abdominal dropsy*, where the powder proved diuretic and laxative, the dropsy was removed in less than two months.

The reply of Dr. Chateau to the question of the Academy is: "*That squill has a direct hyposthenic action upon the ganglionic and cerebro-spinal systems, and that this action is exhibited at first by an increase of the urinary and intestinal secretions, and at last, if the dose of the drug be large, by paralysis and death.*"

Dr. Chateau prefers the powder for internal administration, next to this the wine of squill, and as an expectorant, the oxymel. He considers 10 to 15 centigrammes (from  $1\frac{1}{2}$  to  $2\frac{1}{2}$  grains) a good dose to commence with, and that it may be increased, after some days, to 35 or 40 centigrammes ( $5\frac{1}{2}$  to 6 grains).—*B. and F. Med.-Chirurg. Rev.* July, 1854, from *Archives Générales*, Jan. 1854.

8. *On Delphinin*.—The deficiency of our knowledge respecting the properties and operation of the alkaloid delphinin, has led Dr. LEONIDES VAN PRAAG to their new and complete investigation. The delphinin which was employed in the experiments whose results we are about to detail, was obtained from Messrs. Frommsdorf, of Erfurt.

Dr. J. L. Van Praag administered the alkaloid to animals from each class of the vertebrata, and in the paper under our notice, gives the results of his observations on fishes, frogs, birds, and mammalia, and relates at length the experiments which he instituted. The mammals which he selected for experiment were dogs, cats, and rabbits. In these, asphyxia, as a result of paralysis of the heart (*Herzlähmung*), was among the principal phenomena; whilst paralysis (*Lähmung*) of the nerves of motion, and, at a later period, of those of secretion and the special senses followed. Dogs were least of all affected when the poison was given to them in a piece of meat, since the two were soon vomited together. It operated more powerfully when it was administered by the anus, or introduced into a wound of the integument. But death followed almost suddenly, so that scarcely a minute intervened, upon injection into a vein, from arrest of the heart's action; the animals, in consequence of discontinuance of respiration, gasp for breath with open mouth, and in a short time death follows, in the midst of severe tetanus. On injection of the alcoholic solution into the anus in dogs, repeated evacuation of feces at first occurred, and then salivation. The walk became staggering and uncertain. There arose great adynamia, in consequence of which they leaned against anything for support, until at last they fell down. The sensibility of the skin diminishes simultaneously with the lessening power of the motor nerves, until anæsthesia is complete. The respiration is at first increased, panting and accompanied by howling; in addition to this, tenacious, clear mucus accumulates in the glottis and larynx, which renders respiration still more difficult. At a later period, the frequency of respiration diminishes, until at last the act occurs very rarely, or ceases altogether. The functions of the brain and of the organs of the senses are little affected, until the disturbance of the circulation and respiration increases. In the instance of cats, into whose anus the alcoholic solution was injected, the evacuation of feces and flow of saliva were also increased, and there were observed, at first, frantic and wild leaps, the symptoms of adynamia occurring at a later period. The phenomena of the circulation and respiration are the same as in dogs, and both cats and dogs show signs of a tickling sensation in the mouth. In rabbits, also, after the injection into the anus, active and strong symptoms of reaction appear, as in cats, terminating, however, in adynamic symptoms. When the delphinin, in a fatal dose, was introduced, in cats, into the subcutaneous cellular tissue of the back, the poison operated first of all on the sensory nerves at this spot, and induced symptoms resembling those arising from a powerful irritant. The animals exhibited great disquiet, bristled up their hair, set up their back, rolled on their back, and finally lay down. Gradually, however, in this case also, the action of the poison upon the